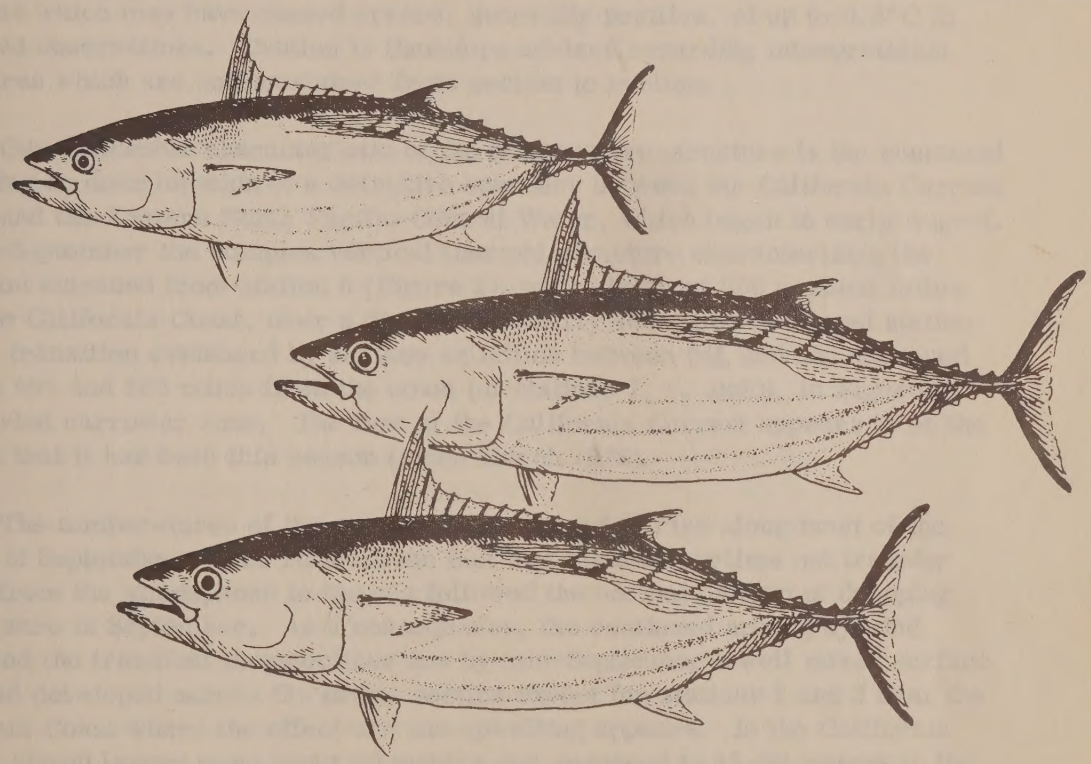
SEPTEMBER 1972, No. 9

FISHING INFORMATION

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



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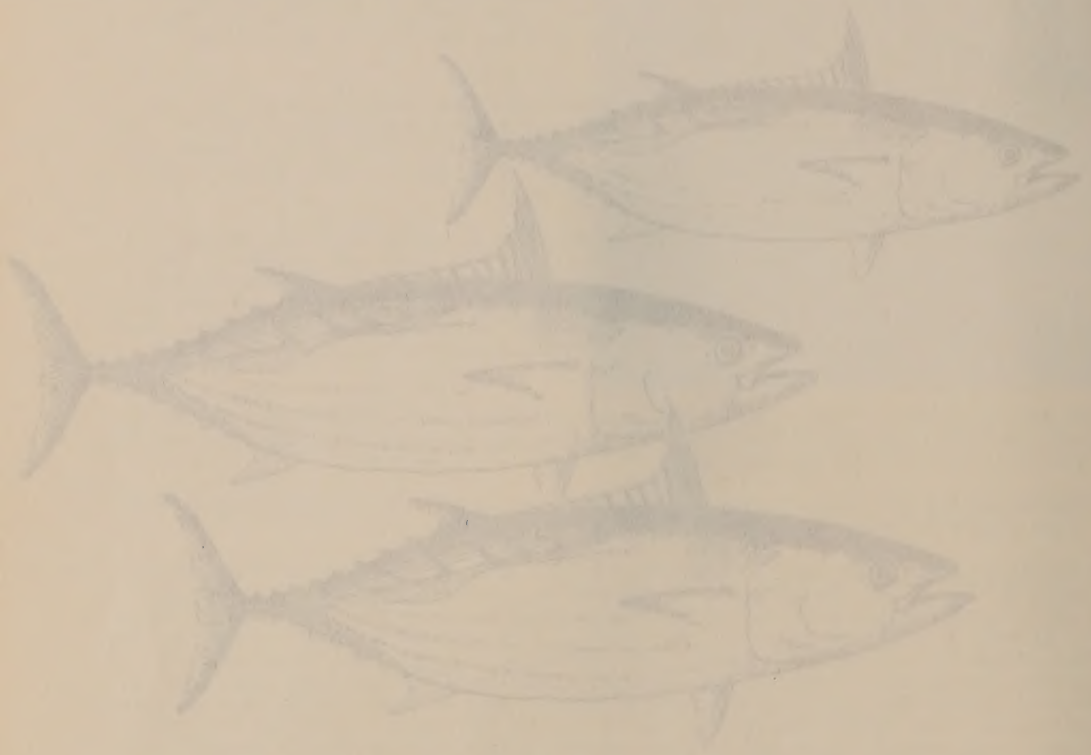


SUBSURFACE TEMPERATURE STRUCTURE IN THE NORTHEAST PACIFIC OCEAN

Due to instrument failure there is no subsurface temperature section for Voyage 49 of the S. S. Hawaiian Enterprise about the third week in August. Subsurface temperature structure for early September and mid-September is shown in Figures 1 and 2, respectively. Subjective examination of the recorded traces for these sections indicates the possibility of yet unidentified instrument problems which may have caused errors, generally positive, of up to 0.5°C in scattered observations. Caution is therefore advised regarding interpretation of features which are not consistent from section to section.

One noticeable characteristic of the temperature structure is the continued weakening or deterioration of a definitive boundary between the California Current Region and the Eastern North Pacific Central Water, which began in early August. By mid-September the complex vertical thermal structure characterizing the transition extended from station 6 (Figure 2), which is about 550 nautical miles from the California Coast, over a distance of nearly 400 miles to beyond station 9. The transition evidenced by surface salinities between 34‰ and 35‰ appeared between 600 and 900 miles from the coast (at stations 7, 8, and 9, in Figure 2) a somewhat narrower zone. The flow of the California Current appears to be the weakest that it has been this season (since March 1972).

The temperatures of the surface layer ceased to rise along most of the section in September. This reflects the fact that the summertime net transfer of heat from the atmosphere to the sea followed the normal pattern of dropping to near zero in September. As a consequence, the continued mixing by wind dissipated the transient thermoclines and by mid-September a well mixed surface layer had developed across the entire section except for stations 1 and 2 near the California Coast where the effect of weak upwelling appears. In the California Current mixed layers were about 30 meters and deepened to 45-50 meters in the region beyond 1000 miles from the coast. We can anticipate fairly consistent deepening of mixed layers to continue into winter.

NARRATIVE DESCRIPTION OF OCEAN TEMPERATURE CONDITIONS
SEPTEMBER 1972

Northeastern Pacific

Sea surface temperatures continued to be a little higher than normal over most of the eastern North Pacific, south of latitude 50°N (Fig. 7). Deviations from the long-term mean in excess of 2°F (1°C) occurred in areas off southern California and Baja California; north of Hawaii between 25°N and 30°N; west of longitude 175°W between 35°N and 45°N; and in a central area eastward from 155°W to 140°W between 40°N and 45°N. Below normal temperatures prevailed in the coastal zone from Cape Mendocino northward.

The most notable change from the August pattern of anomalous temperatures occurred west of 165°W, between latitudes 40°N and 45°N, where negative deviations of 2°F (1°C) in August were replaced by positive deviations of equal magnitude in September. Light winds and reduced cloudiness contributed to unseasonable warming in this area through below-normal heat loss by evaporation and above-normal heat gain by solar insolation. Temperatures in surface waters north of latitude 45°N, from 155°W to 175°W, remained below the long-term means but the magnitudes of the deviations were less than in August.

High atmospheric pressure persisted north and east of the average September location of the northeast Pacific anticyclone (approximately 35°N, 145°W) during much of the month. Passage eastward through the Gulf of Alaska along tracks usually followed by low pressure systems was therefore blocked and, consequently, some lows developed farther south and west than the normal location for September. The occurrence of such displacements resulted in positive departures of surface pressure from the long-term mean distributed around 50°N, 140-150°W, and negative departures centered at about 37°N, 172°W. The associated, anomalous wind component between these centers of maximum pressure deviations was directed toward the northwest and probably helped maintain the warm condition in this portion of the eastern North Pacific through northward advection of warm temperatures. Similarly, anomalous southward wind components between the center of maximum positive deviations and the coast, helped maintain the cold condition in coastal waters north of 40°N.

Eastern Tropical Pacific

A condition of very warm surface water temperatures, which has been developing for several months off northern Peru and Ecuador, tended to revert somewhat closer to normal this month. Waters 50-250 miles offshore, which had been

up to 8°F (4°C) above normal, cooled to within 4°F (2°C). Temperatures along the equator, westward to longitude 140°W also cooled and positive deviations from the long-term means dropped from 6-8°F (3°-4°C) to 4°-6°F (2°-3°C) (Fig. 10). This lowering of surface temperatures toward normal conditions reflects a resumption of coastal and equatorial upwelling in response to the re-establishment of the eastern South Pacific anticyclone. The transient southern hemisphere lows stayed poleward of latitude 30°S during September and caused only occasional weakening of normal pressure gradients off the Peru coast.

Conditions elsewhere in the eastern tropical Pacific remained similar to those in August, with temperatures generally a little warmer than normal, except in a few areas 100-400 miles off the Central American coast. These areas were marked by relatively cool temperatures reflecting tropical storm activity in August and September.

Staff, Fishery-Oceanography Investigations
R. Michael Laurs, Leader

SEA SURFACE TEMPERATURE CHARTS, PACIFIC OCEAN
SEPTEMBER 1972

Acknowledgements

The following organizations and stations contributed data for September charts:

Hopkins Marine Station, Pacific Grove, California, J. P. Balesteri
Kelco Company, San Diego, California
Living Marine Resources Inc., San Diego, California
National Oceanic and Atmospheric Administration
National Marine Fisheries Service, La Jolla, California; Honolulu, Hawaii
National Weather Service, San Diego, California
National Ocean Survey, Pacific Marine Center, Seattle, Washington
Pacific Environment Institute, Fisheries Research Board of Canada, West Vancouver, British Columbia, by H. J. Hollister from observations by S. G. Westhaver at Langara Island Light; J. Godin at Cape St. James Light; L. Collins at Kains Island Lightstation; O. A. Edwards at Amphitrite Point Light
Scripps Institution of Oceanography, La Jolla, California, by Margaret Robinson
U.S. Naval Weather Service, Fleet Numerical Weather Central, Monterey, California
Fishing vessels Antonina C., Bettie M., Bold Contender, Carol S., Cheryl Marie, City of San Diego, Conquest, Eastern Pacific, Elizabeth C. J., Frances Ann, Gemini, Gina Karen, Independence, Kathleen, Larry Roe, Low Jean II, Marco Polo, Mary Antonette, Mary Barbara, Queen Mary, San Juan, Trinidad, United States, Venturous, Vivian Ann

Expendable bathythermograph observations are made by the Mates of the S.S. Hawaiian Enterprise of Matson Navigation Co., and processed with assistance from the NMFS Pacific Environmental Group, Monterey: Project partically supported by National Science Foundation Grant AG-256.

Charts

Figure 1.--Surface temperature and salinity and subsurface temperature structure from expendable bathythermograph observations between San Francisco and Honolulu: September 2-9, 1972.

Figure 2.--Surface temperature and salinity and subsurface temperature structure from expendable bathythermograph observations between San Francisco and Honolulu: September 16-20, 1972.

Figure 3.--Twelve-year mean (1961-1972) observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots) and average wind speed (knots) regardless of direction.

Figure 4.--Observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots) and average wind speed (knots) regardless of direction.

Figure 5.--Mean sea surface temperature, eastern North Pacific Ocean. Squares show temperatures at weathership stations. Numerals on shore are temperatures at coastal and lightship stations.

Figure 6.--Mean sea surface temperature chart, western North Pacific Ocean.

Figure 7.--Deviation of sea surface temperatures, eastern North Pacific Ocean from long-term charts of H.O. 225. Hatched areas are colder in 1972.

Figure 8.--Deviation of sea surface temperatures, eastern North Pacific Ocean from those of September 1971. Hatched areas are colder in 1972.

Figure 9.--Mean sea surface temperature, eastern tropical Pacific Ocean. Numerals on shore are temperatures at coastal stations.

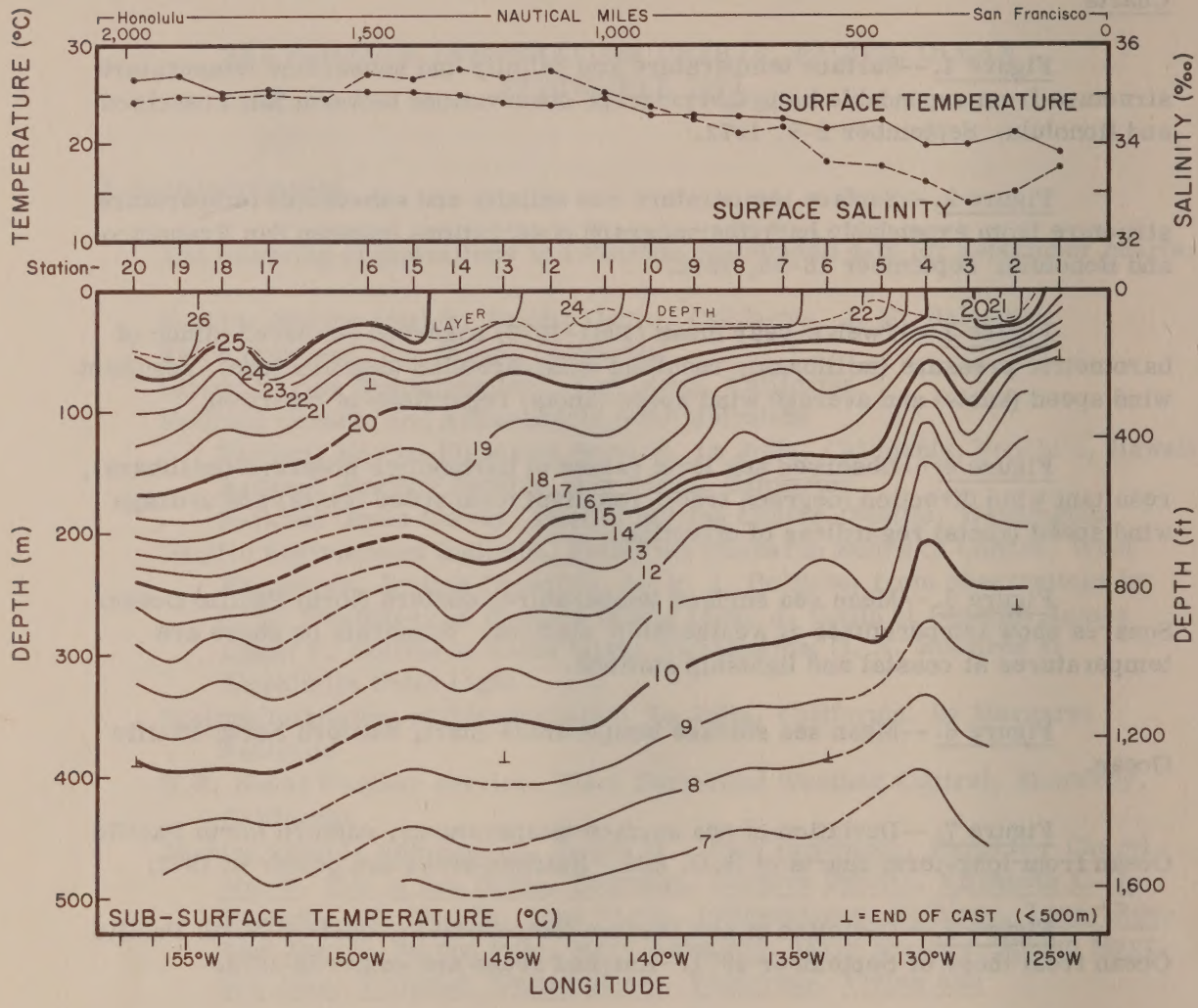
Figure 10.--Deviation of sea surface temperatures, eastern tropical Pacific Ocean from long-term charts of H.O. 225 and NAVOCEANO sp-123. Shaded areas are colder in 1972. Contours are dashed in sparse data areas.

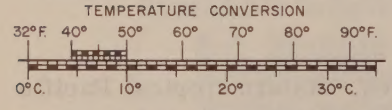
Figure 11.--Deviation of sea surface temperatures, eastern tropical Pacific Ocean from those of September 1971. Shaded areas are colder in 1972. Contours are dashed in sparse data areas.

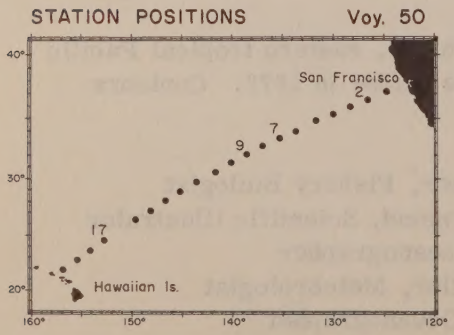
James A. Renner, Fishery Biologist
Kenneth S. Raymond, Scientific Illustrator
L. E. Eber, Oceanographer
Forrest R. Miller, Meteorologist
J.F.T. Saur, Oceanographer
October 13, 1972

SEPTEMBER 2-9, 1972
SS HAWAIIAN ENTERPRISE, Voyage 50

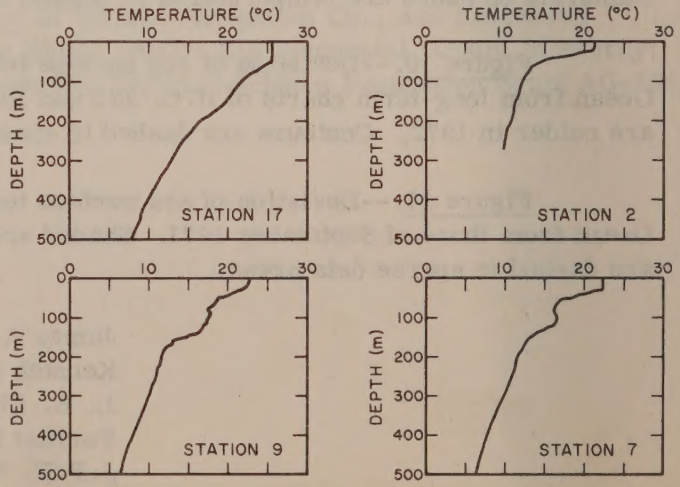
FIGURE 1.





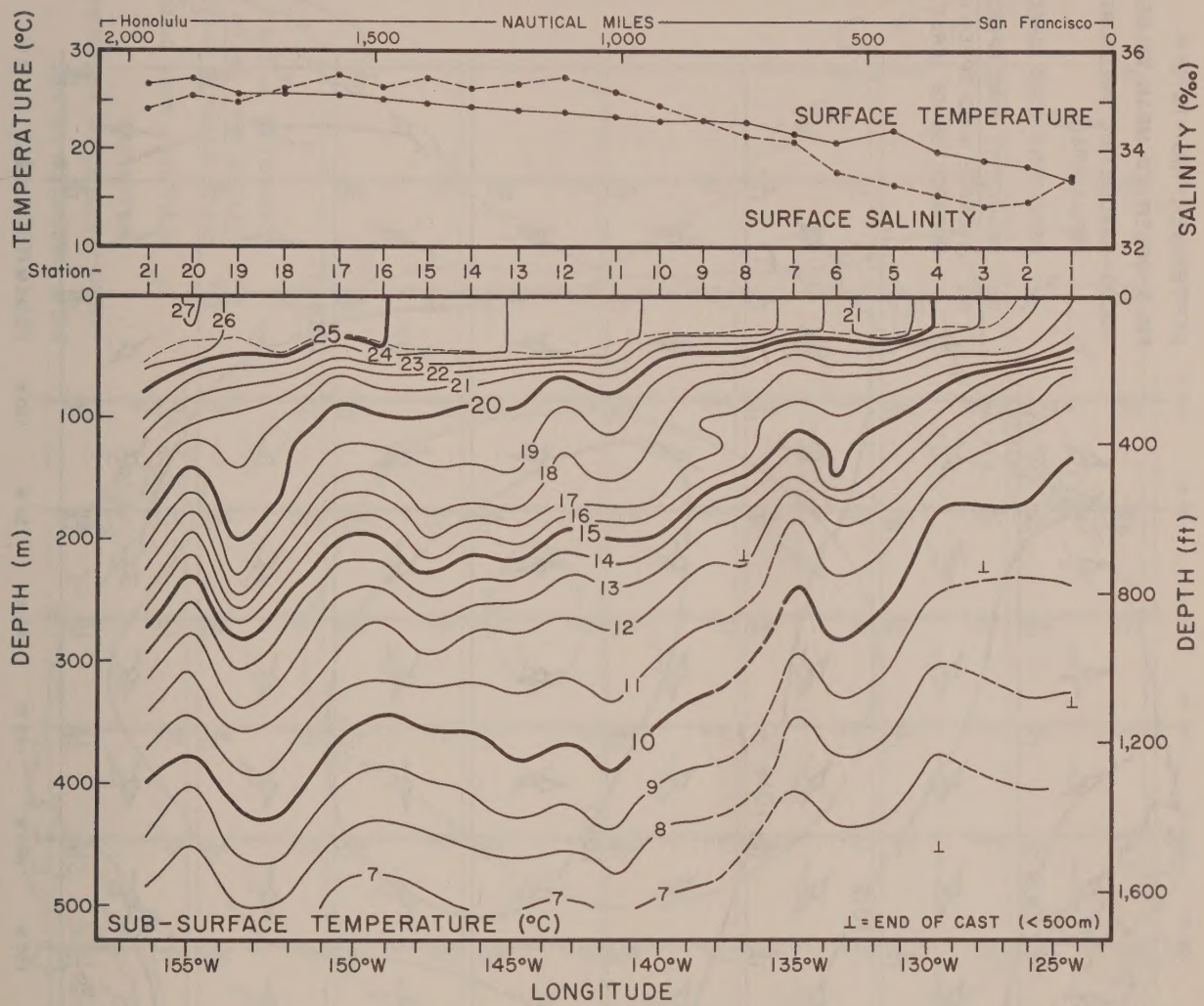


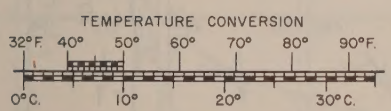
SELECTED STATION PROFILES

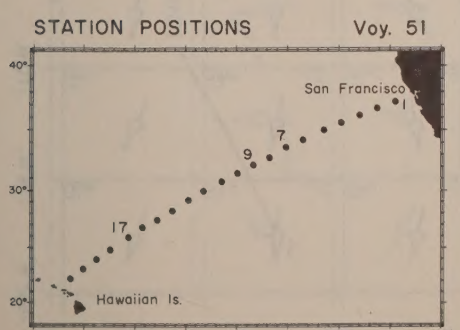


SEPTEMBER 16–19, 1972
SS HAWAIIAN ENTERPRISE, Voyage 51

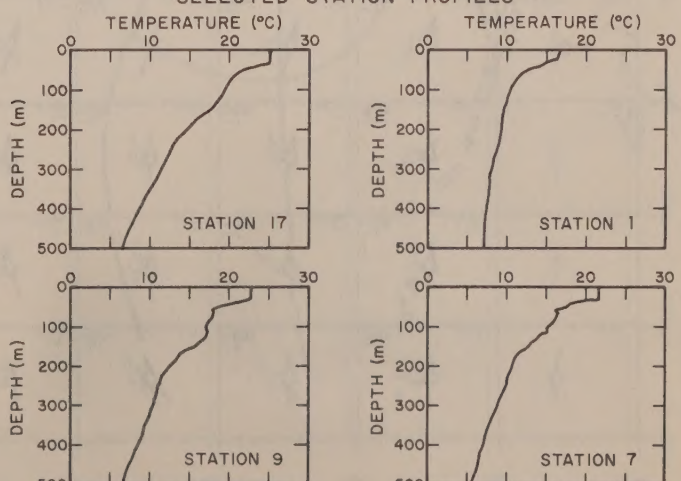
FIGURE 2.

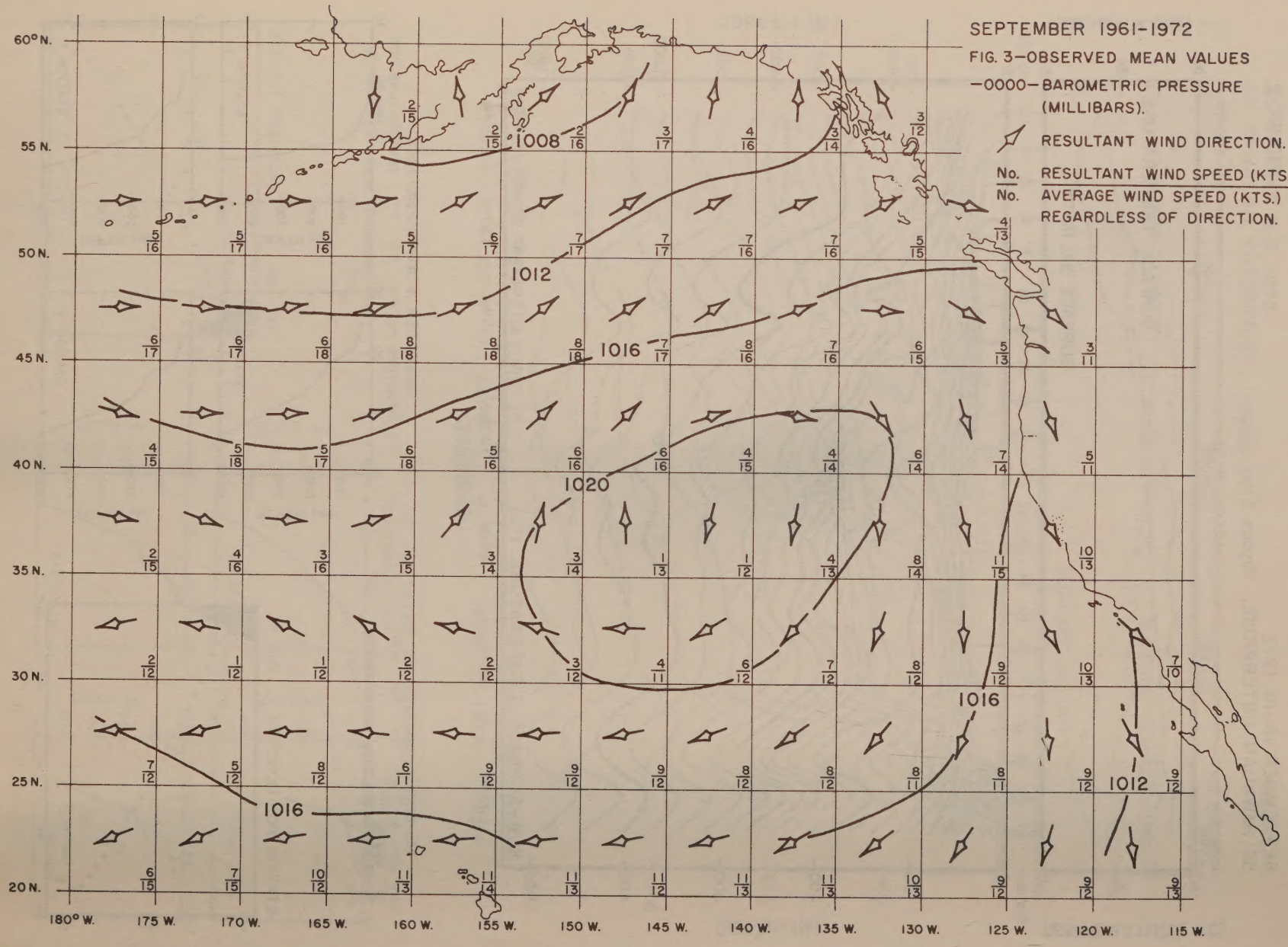


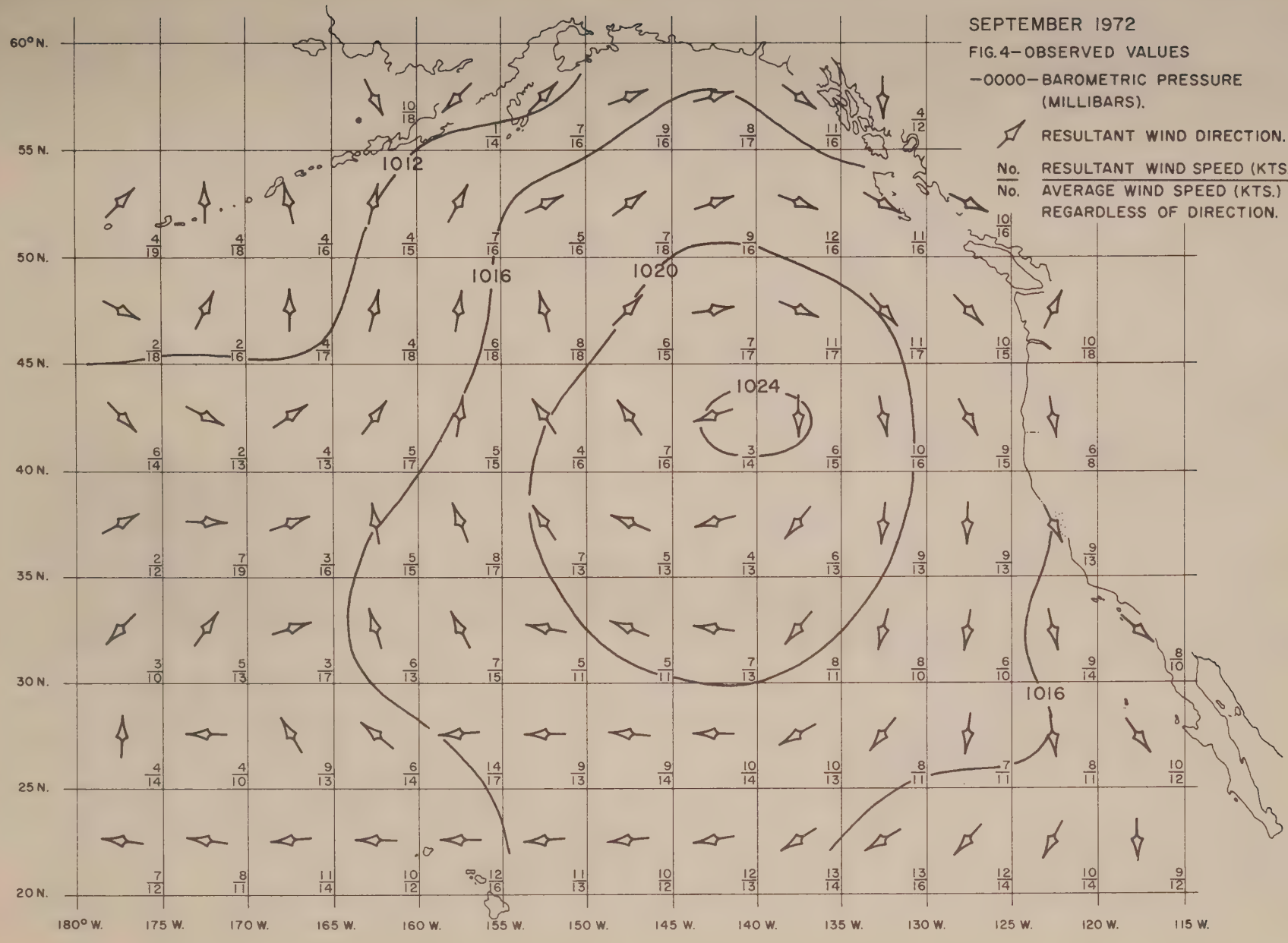


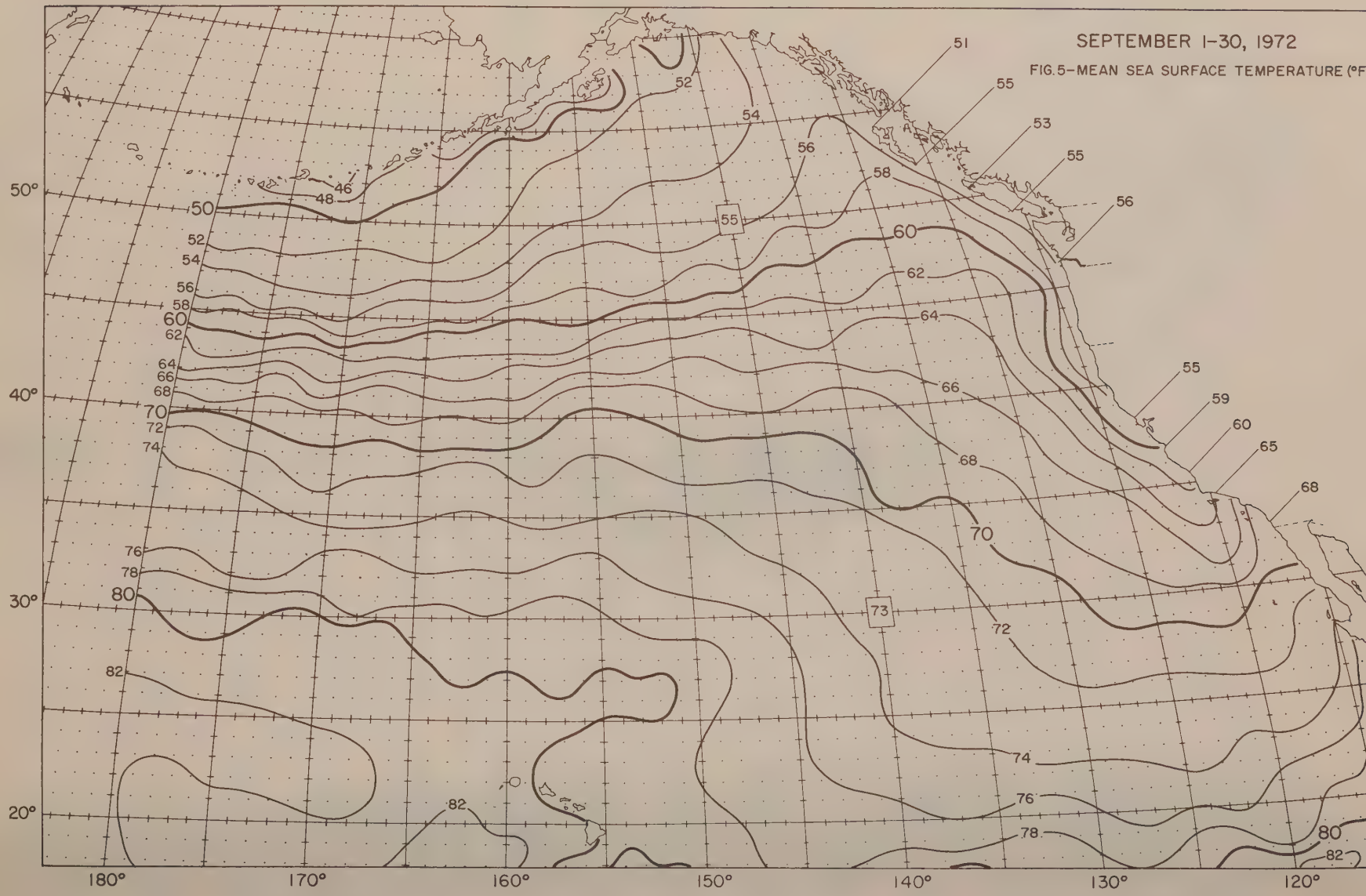


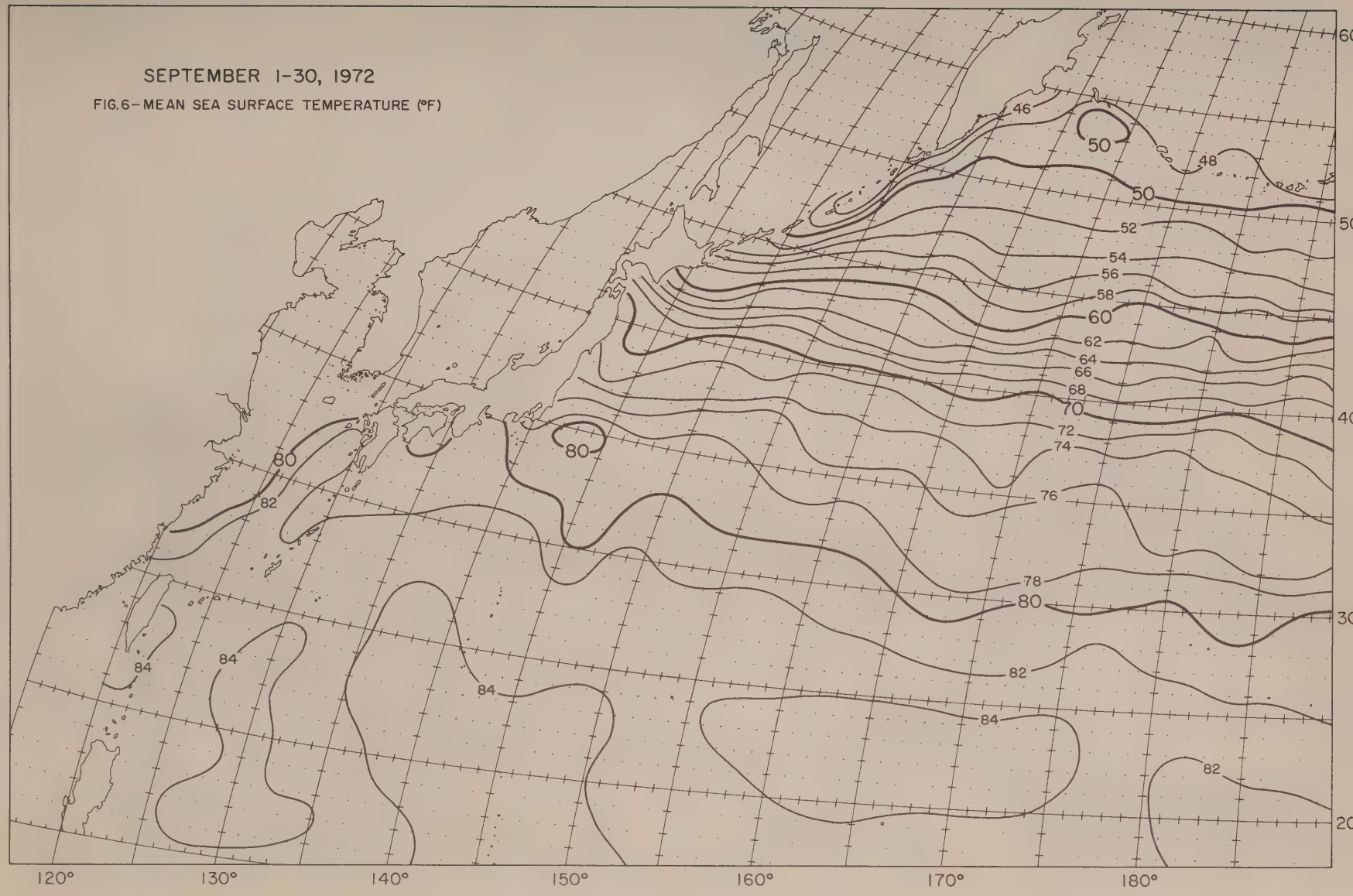
SELECTED STATION PROFILES

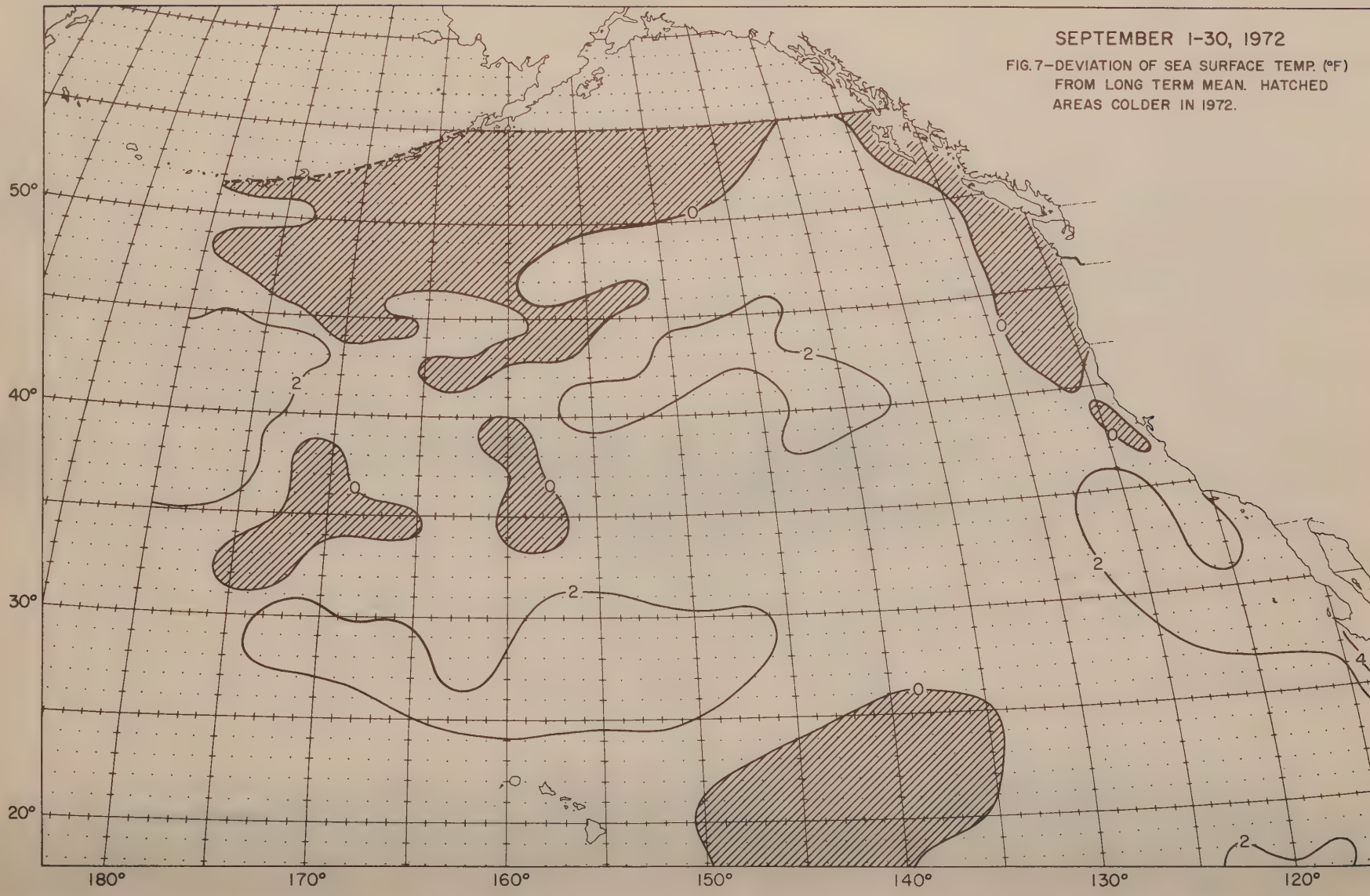


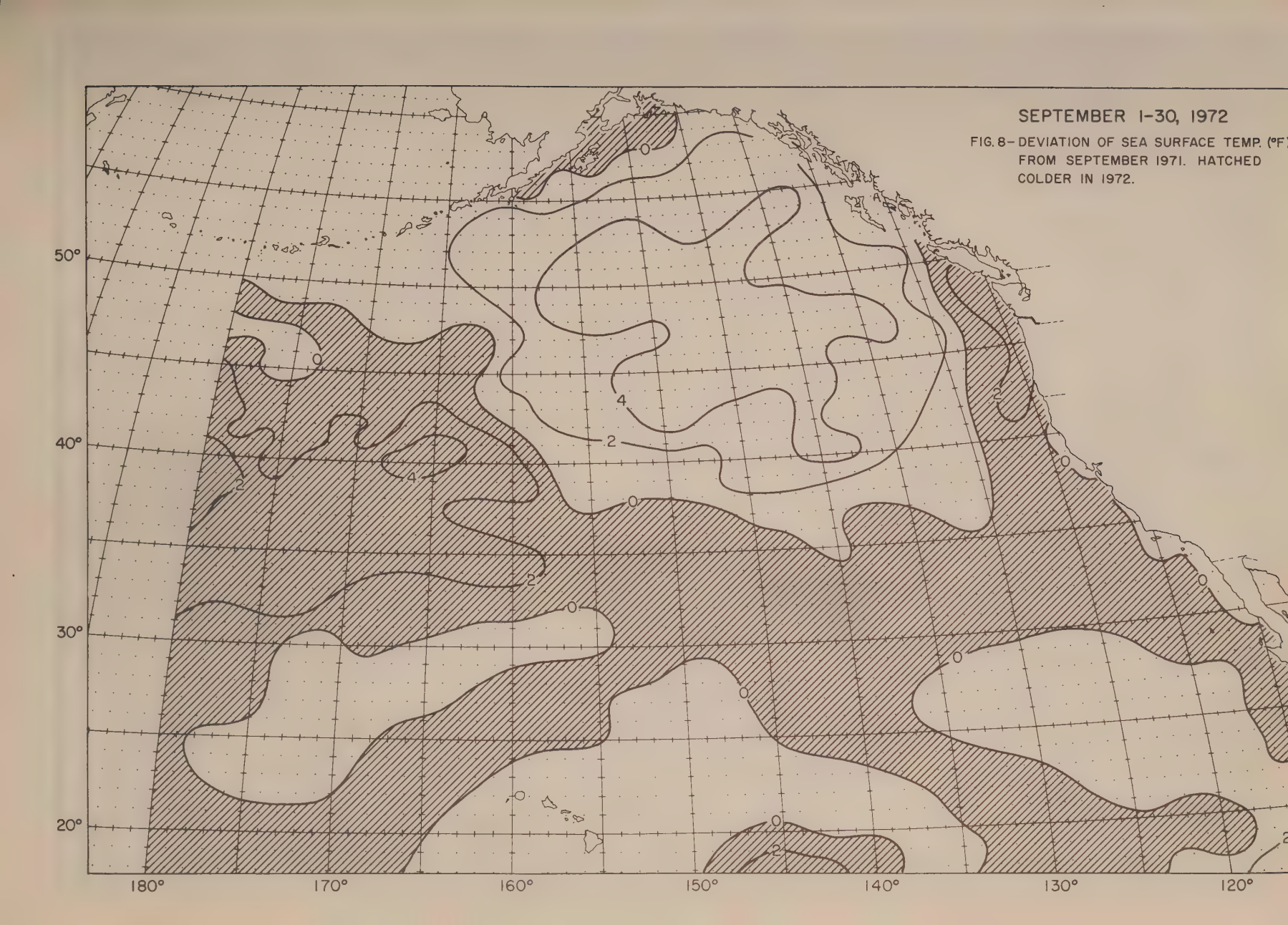

SEPTEMBER 1961-1972
FIG. 3—OBSERVED MEAN VALUES
—0000— BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.).
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1008
1012
1016
1020
1016
1012
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.

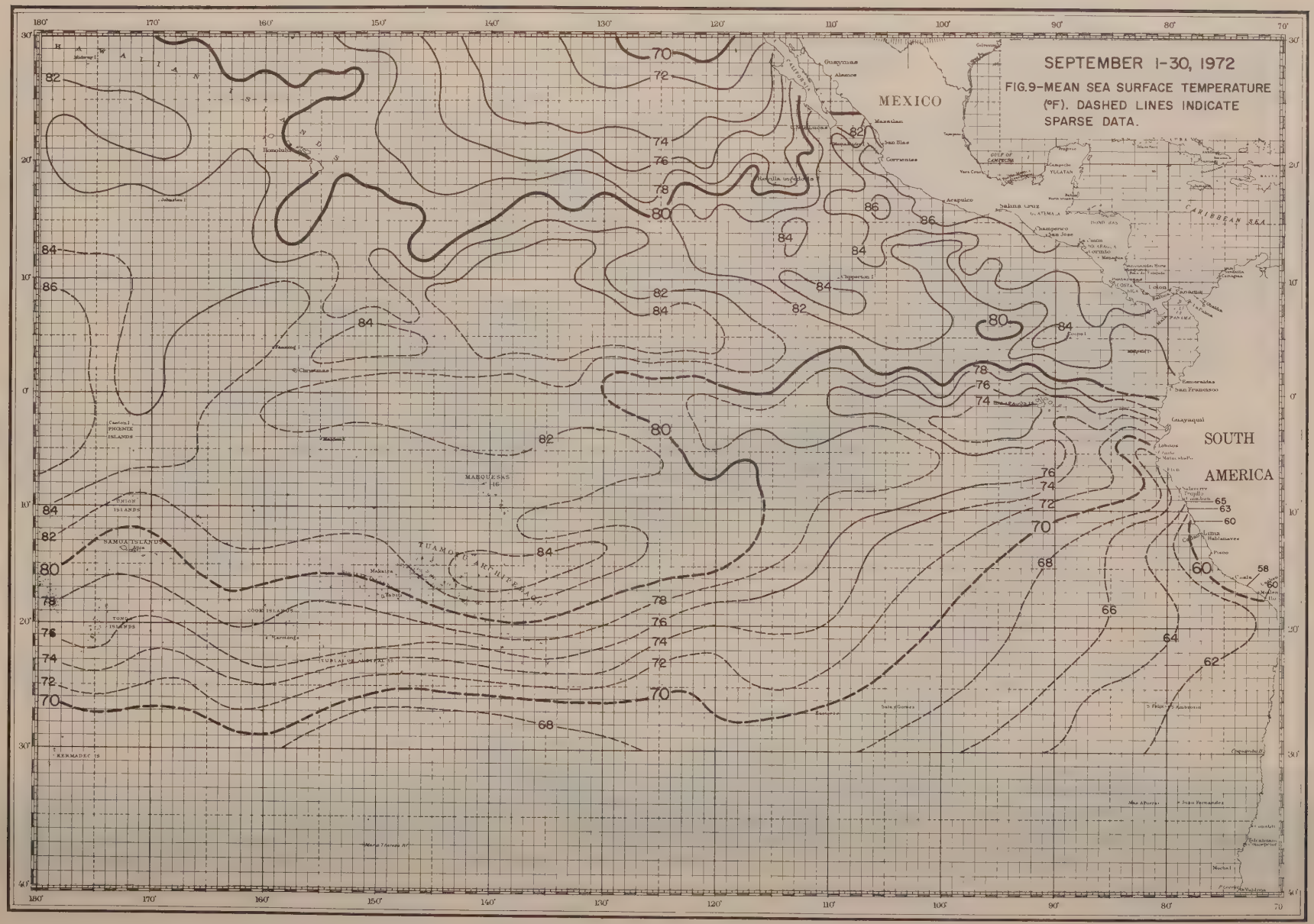

SEPTEMBER 1972
FIG. 4 – OBSERVED VALUES
–0000– BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.).
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1012
1016
1020
1024
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.

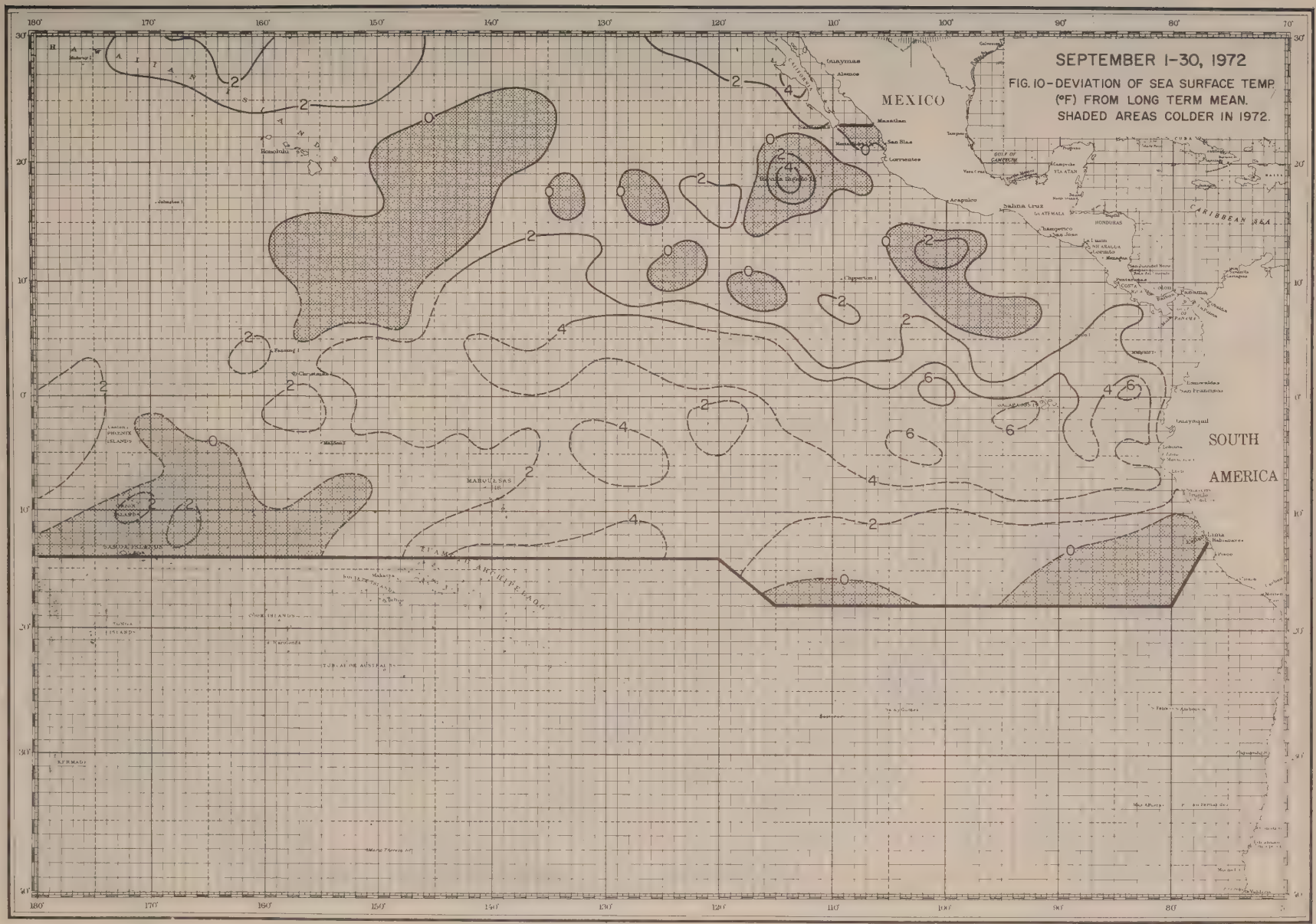

SEPTEMBER 1-30, 1972
FIG.5-MEAN SEA SURFACE TEMPERATURE (°F
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
46
48
50
52
54
56
58
60
62
64
66
68
70
72
74
76
78
80
82
51
55
53
55
56
55
59
60
65
68
73

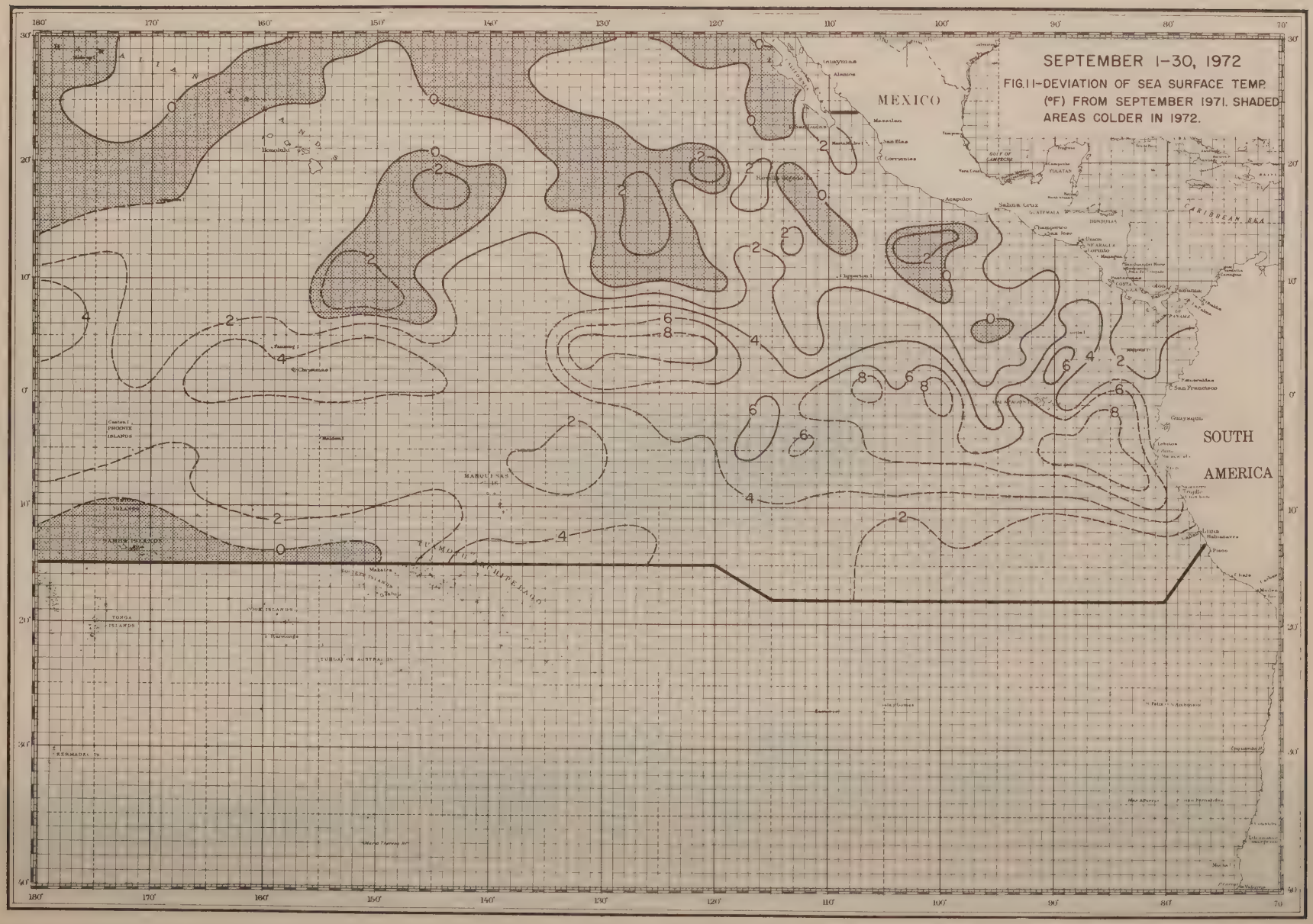

SEPTEMBER 1-30, 1972
FIG.6-MEAN SEA SURFACE TEMPERATURE (°F)
46
50
48
50
52
54
56
58
60
62
64
66
68
70
72
74
76
78
80
82
84
120°
130°
140°
150°
160°
170°
180°


SEPTEMBER 1-30, 1972
FIG. 7—DEVIATION OF SEA SURFACE TEMP. (°F) FROM LONG TERM MEAN. HATCHED AREAS COLDER IN 1972.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
0
2
4


SEPTEMBER 1-30, 1972
FIG. 8 – DEVIATION OF SEA SURFACE TEMP. (°F)
FROM SEPTEMBER 1971. HATCHED
COLDER IN 1972.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
0
2
4
0
2
4
0
2
0
0
0
0
0
0
2


SEPTEMBER 1-30, 1972
FIG.9-MEAN SEA SURFACE TEMPERATURE (°F). DASHED LINES INDICATE SPARSE DATA.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
HAWAIIAN ISLANDS
MARQUESAS
SAMOA ISLANDS
COOK ISLANDS
TUAMOTU ARCHIPELAGO
KERMADEC IS.
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
40°


SEPTEMBER 1-30, 1972
FIG. 10-DEVIATION OF SEA SURFACE TEMP. (°F) FROM LONG TERM MEAN.
SHADED AREAS COLDER IN 1972.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CALIFORNIA
GULF OF CAMPECHE
Manzanillo
Acapulco
Salina Cruz
Tampico
Veracruz
Progreso
Campeche
Guayaquil
Callao
Lima
Panama
Honolulu
Johnston I.
Palmyra I.
Christmas I.
Fanning I.
Tapperum I.
MARQUESAS
SAMOA (FRIENDLY) IS.
TUBUAI OR AUSTRAL IS.
KERMADEC
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°


SEPTEMBER 1-30, 1972
FIG.11-DEVIATION OF SEA SURFACE TEMP. (°F) FROM SEPTEMBER 1971. SHADED AREAS COLDER IN 1972.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GUATEMALA
HONDURAS
COSTA RICA
PANAMA
COLOMBIA
ECUADOR
PERU
Acapulco
Salina Cruz
Manzanillo
Mazatlan
San Blas
Lima
Callao
Paracas
Chimbote
Paita
Guayaquil
Buenaventura
Tumaco
Cristobal
Panama
Puerto Limon
Puerto Cortes
Belize
Progreso
Campeche
Veracruz
Tuxpan
Tampico
Yucatan
Cozumel
Cayman Is.
Jamaica
Kingston
Haiti
Cuba
Havana
Key West
Florida
Bahamas
Nassau
Bermuda
Hawaiian Is.
Honolulu
Johnston Island
Palmyra
Christmas
Fanning
Canton I.
PHOENIX ISLANDS
MARQUESAS IS.
SAMOA ISLANDS
TONGA ISLANDS
COOK ISLANDS
Rarotonga
Tahiti
Makatea
TUAMOTU ARCHIPELAGO
TUBUAI OR AUSTRAL IS.
KERMADEC IS.
Easter I.
Juan Fernandez
Mas A Fuera
Mas A Tierra
Isla de Cocos
Galapagos Is.
Isla de Pascua
Sala y Gomez
Nazca
Arica
Iquique
Antofagasta
Mejillones
Valparaiso
Concepcion
Talcahuano
Chile
Madeira Is.
Canary Is.
Las Palmas
Azores
Cape Verde Is.
Dakar
Monrovia
Liberia
Ivory Coast
Abidjan
Accra
Ghana
Togo
Lome
Nigeria
Lagos
Cameroon
Douala
Gabon
Libreville
Port Gentil
Angola
Luanda
Benguela
Namibe
Walvis Bay
Namibia
Cape Town
South Africa
Durban
Mozambique
Beira
Madagascar
Tamatave
Mauritius
Port Louis
Reunion
Seychelles
Victoria
Kenya
Mombasa
Somalia
Mogadishu
Aden
Yemen
Red Sea
Suez
Egypt
Alexandria
Libya
Tripoli
Algeria
Algiers
Morocco
Casablanca
Tangier
Spain
Portugal
Lisbon
Gibraltar
France
Marseilles
Italy
Naples
Sicily
Malta
Greece
Crete
Turkey
Istanbul
Black Sea
Romania
Bulgaria
Yugoslavia
Trieste
Venice
Hungary
Austria
Vienna
Germany
Hamburg
Bremen
Netherlands
Amsterdam
Belgium
Antwerp
England
London
Ireland
Dublin
Scotland
Edinburgh
Iceland
Reykjavik
Norway
Oslo
Sweden
Stockholm
Finland
Helsinki
Russia
Leningrad
Murmansk
Archangel
Novaya Zemlya
Franz Josef Land
Spitsbergen
Greenland
Nuuk
Godthaab
Labrador
Newfoundland
St. John's
Nova Scotia
Halifax
New Brunswick
Prince Edward I.
Quebec
Montreal
Ontario
Toronto
Ottawa
Hudson Bay
Manitoba
Winnipeg
Saskatchewan
Alberta
Edmonton
Calgary
British Columbia
Vancouver
Victoria
Alaska
Anchorage
Fairbanks
Juneau
Aleutian Is.
Kodiak
Yukon
Northwest Territories
Baffin I.
Ellesmere I.
Victoria I.
Banks I.
Prince of Wales I.
Somerset I.
Melville I.
Devon I.
Axel Heiberg I.
Queen Elizabeth Is.
Mackenzie
Great Bear L.
Great Slave L.
Athabasca L.
Lake Winnipeg
Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Gulf of Mexico
Gulf of California
Gulf of Alaska
Bering Sea
Chukchi Sea
Beaufort Sea
Barents Sea
Kara Sea
Laptev Sea
East Siberian Sea
Wrangel I.
Kamchatka
Sea of Okhotsk
Sea of Japan
Japan
Tokyo
Yokohama
Nagoya
Osaka
Kobe
Hiroshima
Nagasaki
Sapporo
Hokkaido
Honshu
Shikoku
Kyushu
Okinawa
Taiwan
Taipei
Philippines
Manila
Cebu
Mindanao
Davao
Borneo
Kalimantan
Sarawak
Brunei
Sabah
Kota Kinabalu
Sulawesi
Celebes Sea
Makassar Strait
Java Sea
Java
Jakarta
Surabaya
Sumatra
Medan
Padang
Palembang
Bengkulu
Lampung
Bandar Lampung
Malaysia
Kuala Lumpur
Penang
Singapore
Thailand
Bangkok
Gulf of Thailand
Andaman Sea
Andaman Is.
Nicobar Is.
Burma
Rangoon
Bay of Bengal
India
Calcutta
Madras
Pondicherry
Sri Lanka
Colombo
Trincomalee
Maldives
Male
Arabian Sea
Pakistan
Karachi
Iran
Persian Gulf
Bahrain
Qatar
Doha
United Arab Emirates
Abu Dhabi
Dubai
Oman
Muscat
Masirah I.
Socotra I.
Gulf of Aden
Djibouti
Ethiopia
Addis Ababa
Eritrea
Asmara
Sudan
Khartoum
Port Sudan
Red Sea
Saudi Arabia
Jeddah
Mecca
Medina
Riyadh
Dhahran
Kuwait
Iraq
Basra
Baghdad
Syria
Damascus
Lebanon
Beirut
Israel
Haifa
Tel Aviv
Jerusalem
Jordan
Amman
Cyprus
Nicosia
Turkey
Ankara
Izmir
Adana
Iskenderun
Aegean Sea
Dardanelles
Sea of Marmara
Black Sea
Georgia
Tbilisi
Batumi
Armenia
Yerevan
Azerbaijan
Baku
Caspian Sea
Turkmenistan
Ashkhabad
Uzbekistan
Tashkent
Samarkand
Kazakhstan
Alma-Ata
Kirghizia
Frunze
Tajikistan
Dushanbe
Afghanistan
Kabul
Kandahar
Herat
Pakistan
Islamabad
Lahore
Peshawar
Quetta
Multan
Hyderabad
Karachi
Rajasthan
Jaipur
Udaipur
Jodhpur
Gujarat
Ahmedabad
Surat
Bombay
Goa
Mangalore
Karnataka
Bangalore
Mysore
Kerala
Cochin
Trivandrum
Tamil Nadu
Madras
Madurai
Coimbatore
Andhra Pradesh
Hyderabad
Vijayawada
Visakhapatnam
Orissa
Bhubaneswar
Puri
Madhya Pradesh
Bhopal
Indore
Jabalpur
Gwalior
Uttar Pradesh
Kanpur
Lucknow
Agra
Allahabad
Varanasi
Meerut
Delhi
Haryana
Punjab
Amritsar
Ludhiana
Chandigarh
Himachal Pradesh
Shimla
Jammu and Kashmir
Srinagar
Leh
Ladakh
Tibet
Lhasa
Shigatse
Gyangtse
Nepal
Kathmandu
Pokhara
Bhutan
Thimphu
Sikkim
Gangtok
Darjeeling
Assam
Guwahati
Shillong
Meghalaya
Nagaland
Kohima
Manipur
Imphal
Mizoram
Aizawl
Tripura
Agartala
Arunachal Pradesh
Itanagar
Tawang
Bangladesh
Dhaka
Chittagong
Khulna
Rajshahi
West Bengal
Kolkata
Howrah
Durgapur
Asansol
Bihar
Patna
Gaya
Ranchi
Jharkhand
Jamshedpur
Dhanbad
Chhattisgarh
Raipur
Bilaspur
Maharashtra
Nagpur
Aurangabad
Nashik
Pune
Mumbai
Thane
Navi Mumbai
Kalyan
Dombivli
Ulhasnagar
Bhiwandi
Mira-Bhayandar
Vasai-Virar
Panvel
Alibag
Ratnagiri
Sindhudurg
Kolhapur
Sangli
Satara
Solapur
Osmanabad
Latur
Nanded
Parbhani
Jalna
Beed
Ahmednagar
Dhule
Jalgaon
Buldhana
Akola
Amravati
Wardha
Yavatmal
Chandrapur
Gadchiroli
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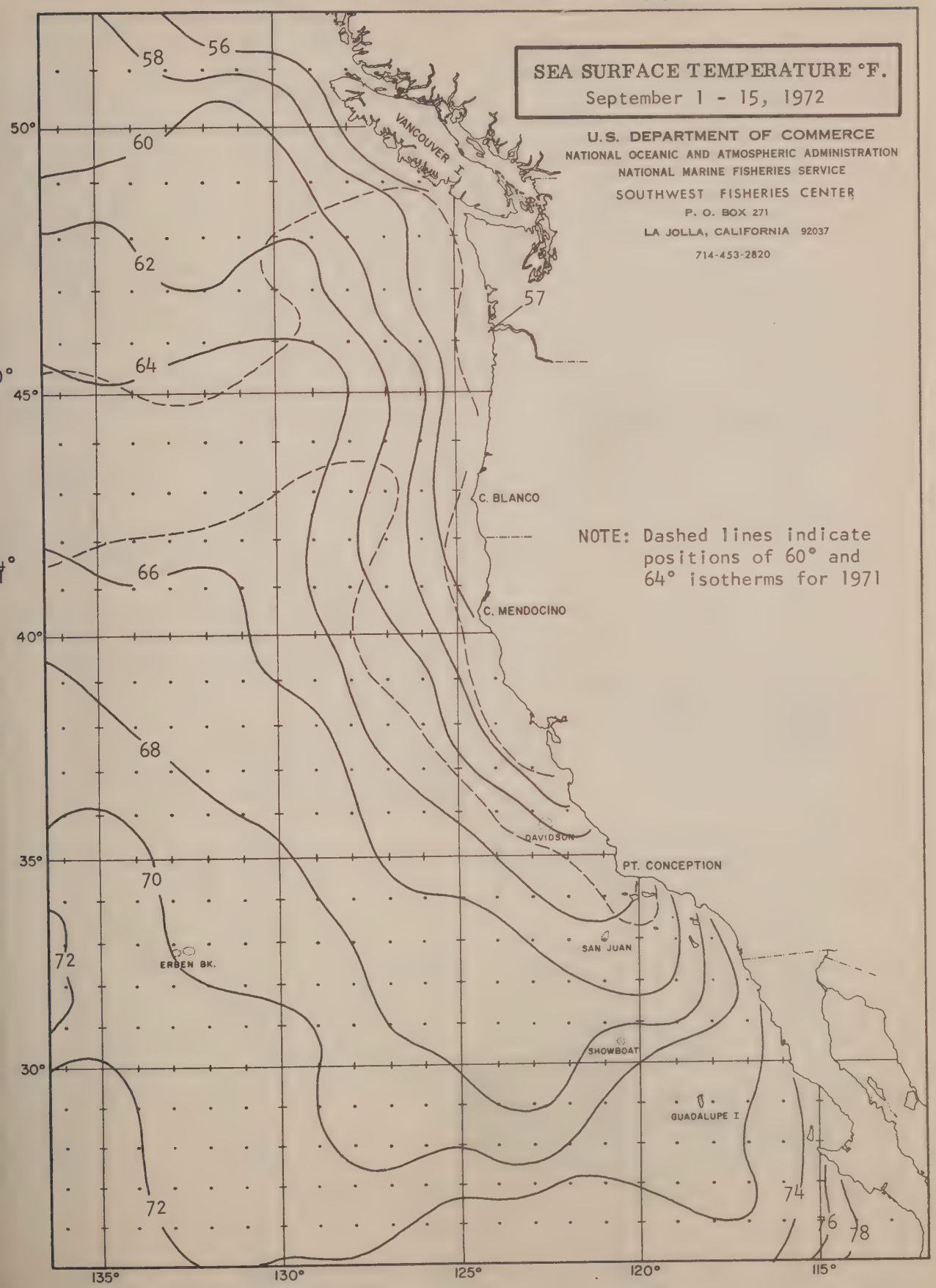
Chandrapur
Gadchiroli
Gondia
Bhandara

FISHING INFORMATION – supplement



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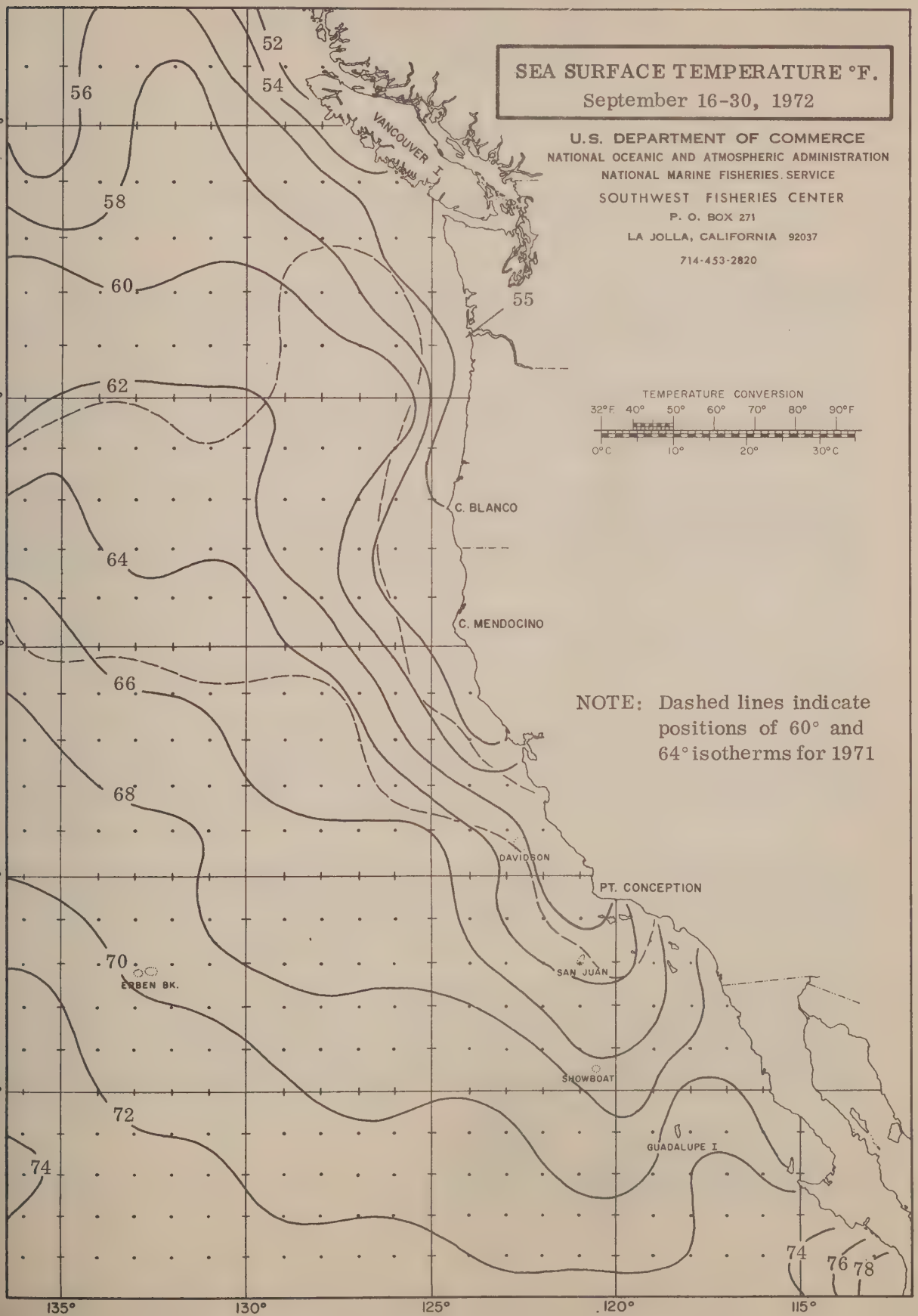

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center
La Jolla, California 92037

FISHING INFORMATION
BULLETIN NO. 72-6

ALBACORE FISHING REMAINS GOOD NORTH OF VANCOUVER ISLAND AND PICKS UP OFF CENTRAL CALIFORNIA

The most consistent fishing during the last 2 weeks of August was from Cape St. James, Queen Charlotte Islands to the northern tip of Vancouver Island. Daily averages have been between 100-300 fish and 4-5 tons per jig boat and bait boat, respectively. Jig boats were getting top scores of better than 700 fish on some days, and one bait boat reported a catch of 2,500 fish on August 15. The albacore caught in this area continue to average about 20 pounds.

Catches were scattered off Oregon and Washington from August 15-30. Jig boats fished mainly from 60-120 miles west of Westport, the Columbia River, Cape Lookout and Heceta Head to Coos Bay, with best scores off Reedsport on August 15 and 16 and off Coos Bay from the 23rd - 29th. The top score off Reedsport was 400 fish on the 15th. A small area west of Coos Bay produced scores of 75-170 fish per boat during parts of the 4th and 5th weeks of August. Albacore taken offshore southern Oregon averaged about 13 pounds, while fish taken near Cape Lookout and Coos Bay averaged about 10 pounds.

Most of the larger jig boats remain off the Canadian coast, however, many of the smaller jig boats are working southward toward central California. When weather permitted, catches between the Farallon Islands and Davidson Seamount steadily increased during the last half of August. High scores were 60-100 fish on August 15 and 16 near Davidson Seamount, but from August 27-29 high catches were 200-400 fish from 40-60 miles offshore between the Farallon Islands and Monterey. Boats fishing near Davidson Seamount again had top scores of 100 fish on August 29. Although many fish were seen in the areas off central California, catches were not good until the last week of August.

Most of the good catches reported by San Diego sportboats have been about 60-70 miles southwest of Point Loma. The best fishing was on August 17 and 25-29 when each angler caught 2-3 fish weighing between 17 and 20 pounds.

About 12,000 tons of albacore were landed during August bringing the season total to approximately 15,000 tons, which is about 3,000 tons more than was landed by this time last year.

The research vessel, David Starr Jordan, working in conjunction with a commercial albacore fishing boat on charter to the American Fishermen's Research Foundation of San Diego, returned to San Diego on August 29, after successfully conducting a sonic tracking and oceanography experiment to study small-scale movements of albacore tuna. Sonic tagging and tracking operations were carried out by NMFS scientists aboard the fishing vessel while detailed oceanographic observations were made by their colleagues aboard Jordan. Albacore were tracked on three occasions off Monterey and Morro Bay for periods of 28, 41, and 50 hours, respectively. The movements of the fish appeared to correlate well with patterns in sea surface temperature and other oceanographic properties.

Due to seasonal warming, sea surface temperatures reached their maximum values during the August 16-31 period in most offshore regions. North of 45°N, prevailing weather conditions have allowed temperatures to climb to values ranging between 2°-3°F above long-term averages. These conditions are reflected in the good albacore catches still being made off the Queen Charlotte Islands. Fairly strong horizontal temperature gradients still exist parallel to the coast between the Columbia River and Point Conception. This is particularly true between Point Sur and Point Conception, and it is in this region that albacore catches have been increasing during the past 2 weeks.

The Extended Forecast Division of the National Weather Service expects sea level pressures to be slightly below average over the eastern North Pacific during September, while temperatures are expected to be near or slightly below average over the west coast states. These conditions should cause fewer periods of strong northwesterly winds than usual at this time of the year, and consequently, boats should be able to fish for longer periods off northern and central California without having to run into port because of rough seas. While occasional weak weather fronts will move inland over the coastal regions of the Pacific Northwest, it is expected that the more intense storm systems that develop in the Gulf of Alaska will head into eastern Alaska and western Canada.

August 31, 1972

Staff, Fishery-Oceanography Investigations
R. Michael Laurs, Leader

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
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FISHING INFORMATION
BULLETIN NO. 72-7

FISHING EFFORT DECREASES NORTH OF VANCOUVER ISLAND

The best jig boat catches during the first half of September were in 59°-60° F waters between Cape St. James, Queen arlotte Islands and Cape Scott, Vancouver Island. On September 10, albacore between 12-14 pounds were caught 90 miles uth of Cape Scott, and on September 11, boats working in the Dellwood Knolls vicinity took many 12-13 pound fish. By ptember 18, most of the fishing effort was in the Dellwood Knolls area where jig boats were getting 12-18 pound fish. Al-ough daily average scores were 150-300 fish per boat, smaller fish were caught in greater numbers by some boats that had oved southward.

Jig boat fishing was spotty from Cape Flattery to Cape Blanco. Bait boats, however, had good scores from 50-60 les offshore between Cape Flattery and Westport.

Most of the jig boats off the Pacific Northwest were catching fish in small patches. On September 10 boats near struction Island had scores up to 200 fish on 12-14 pound albacore. Catches were also spotty 80 miles west of Coos Bay, ere top scores on some days were better than 100 fish. Similar catches were also reported off Tillamook and Newport Reedsport.

The fishery off central California was hampered by poor weather for much of the past 2 weeks. On September 4 top ; boat scores were 300 fish from 120 miles west of San Francisco and 250 fish from 80-90 miles west of Morro Bay. The o bait boat score on this day was 4 tons. Strong winds and rough seas forced many boats into port from September 5-12. September 13 many boats again moved to the area between Davidson Seamount and Ft. Bragg, and the high catch was out 120 fish 120 miles west of San Francisco. Jig boats continued to get good scores in this area until September 17 when o scores dropped to about 100.

Purse seiners worked the area from 60-90 miles southwest of San Diego, taking albacore along with bluefin tuna.

San Diego sport boats had inconsistent fishing during the first 2 weeks of September. Daily catches ranged from ss than one fish to six fish per passenger on large fish.

During the September 1-15 period, strong north to northwesterly winds offshore the Pacific Northwest caused sea rface temperatures to decrease by 2°-4° from their values for the last 2 weeks of August. North of Cape Mendocino, mperature anomalies changed from 1°-2° F above to 1°-2° F below long-term averages. Prevailing weather conditions ring the first 2 weeks of September offshore central California allowed sea surface temperatures to increase 2°-6° F from eir values for the second half of August. Temperatures along shore that were below long-term averages during that period came nearly average or slightly above.

The 60° F isotherm, which reached its maximum northward extension during August, has begun moving southward d will continue to do so as seasonal cooling increases. Waters northwest of Vancouver Island are expected to cool to lues below the optimal for catching albacore. As far as sea surface temperatures are involved, offshore central California ould be the best region for albacore fishing during the next 2 weeks.

According to information supplied by the Extended Forecast Division of the National Weather Service, the strong nds offshore the Pacific Northwest are expected to continue during the last half of September, while weather conditions fshore central California should be favorable for fishing during most of this period.

ptember 18, 1972

Staff, Fishery-Oceanography Investigations
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